

## **REMARKS**

Claims 1-4, 6-30, and 32-38 are pending. Claims 6-26 are withdrawn.

Claim 39 was added in the September 8, 2009 Amendment, entry of which is requested in the Request for Continued Examination with the following Remarks.

### **CLAIM REJECTIONS UNDER 35 U.S.C. §103**

Claims 1-4, 27-30, and 32-37 are rejected under 35 U.S.C. §103(a) as obvious over Drizen U.S. Published Application No. 20020037319 in view of Cantor U.S. Published Application No. 20030054025.

The Examiner states (September 18, 2009 Action):

Drizen et al. does not teach away from using a solution just because they formulated their invention as a gel. One of ordinary skill in the art at the time of the invention would recognize that a solution or a gel could be formulated depending on the desired use for the product ... It would have been well within the skill of one of ordinary skill in the art to take the teachings of Drizen et al. and convert them into a solution ...

Applicants respectfully disagree. Drizen teaches "semisolid, sustained-release drug delivery compositions based on hyaluronic acid and its salts" (Abstract). Drizen teaches only "concentrated gelled composition" (¶13); "The negative charged polymers are generally present in the system in amounts which enables a solid gel to be formed" (¶51); "The solutions used to prepare the gel of the present invention may be prepared in a variety of ways" (¶52); "The resulting system is a clear gel which is storage stable for several years" (¶55).

Applicants also disagree that it would be obvious to formulate Drizen's composition as a sterile aqueous solution at a neutral pH, at least because Drizen specifically teaches a semisolid composition used for sustained-release drug delivery. Drizen does not teach how its stated goal, sustained-release drug delivery, would be achievable using a solution. Drizen teaches a gelled composition that "is believed to form a matrix which microencapsulates, suspends and/or entraps the active drug entity such that when it is administered, it is slowly released into the systemic circulatory systems or muscular tissue" (¶27).

The Examiner's proposed modification of Drizen would materially effect the "matrix" that Drizen teaches, and Drizen does not teach if this slow release of agent would be possible if its composition was a solution.

Thus, Drizen does not teach if its composition would function for its intended purpose as a solution, Drizen does not teach how its composition would function for its intended purpose as a solution, and the Examiner has not provided a basis that the proposed modification would not render Drizen's composition unsatisfactory for its intended purpose.

The Examiner states

It would have been obvious to one of ordinary skill in the art at the time of the invention to add known antimicrobial agents such as iodine-potassium iodide complex taught by Cantor et al. to the wound healing compositions of Drizen et al.

Cantor does not teach the use of hyaluronic acid, whether it be in solution, gel, or dried form. Cantor thus cannot teach the synergistic effects of hyaluronic acid and iodine-iodide complex that

Applicants found enhance wound healing. In further support of this assertion, Applicants submit with this Response a Declaration under 37 C.F.R. §1.132 (Declaration 3). The Declaration analyzes how hyaluronic acid, in combination with iodine-iodide complex, provides unexpected results. Briefly, hyaluronic acid, in combination with iodine-iodide complex, accomplishes each of the following: (1) it activates keratinocytes to produce cytokines (Declaration 3, §5a); (2) it stabilizes and prevents degradation of hyaluronic acid within the wound (Declaration 3, §5b), and (3) it inhibits protease activity (Declaration 3, §5c). None of these results, which individually and collectively promote wound healing, result from using hyaluronic acid alone.

A person having ordinary skill in the art would not modify Drizen to include iodine-iodide complex as an antimicrobial agent. A person having ordinary skill in the art would recognize that iodine-iodide complex is an obsolete disinfectant; it was replaced in the 1950's due to its many negative attributes, e.g., failing to support wound healing, being three times more toxic than PVP-iodide, being painful when applied, discoloring skin, iodine being volatile in a preparation, etc. (Declaration 3, §§3-4).

Applicants assert that the advantages they discovered of the combination of iodine-iodide complex with hyaluronic acid in wound healing and minimizing adhesion to the wound would not be obvious to a person having ordinary skill in the art. Without the knowledge that Applicants' invention provides, a person having ordinary skill in the art would not combine iodine and potassium iodide with hyaluronic acid in a composition for wound healing and minimizing adhesion to the wound, at least because of the deleterious and well-known problems of using iodine and potassium iodide.

Thus, Applicants respectfully assert that Cantor does not cure Drizan's deficiency, at least because Drizen in view of Cantor does not teach a composition for wound healing and minimizing adhesion to the wound comprising a physiologically acceptable salt of hyaluronic acid having molecular weight from 200,000 to 2,500,000, iodine and potassium iodide, forming a composition for wound healing and minimizing adhesion of a wound covering, where the composition is in the form of a sterile aqueous solution at a neutral pH.

Applicants respectfully assert that Drizen in view of Cantor does not render claims 1-4, 27-30, and 32-37 obvious, and therefore request withdrawal of the rejection.

Claim 39 recites a composition comprising a physiologically acceptable salt of hyaluronic acid having molecular weight from 1,000,000 to 2,500,000. Drizen specifically teaches away from hyaluronic acid having molecular weight greater than or equal to 800,000 (Drizen ¶¶29 and 49). Applicants' Declaration also provide data that this range of hyaluronic acid molecular weight provides superior healing properties (Declaration 3 §2 and Enclosure I). Thus, Applicants respectfully assert that claim 39 is not obvious over Drizen in view of Cantor.

## **CONCLUSION**

The application is believed to be in complete condition for allowance. Applicants authorize the Office to charge Deposit Account No. 20-0809 for payment of the Request for Continued Examination and

three month extension of time. No other fees are believed due but, if deemed necessary, the Office is authorized to charge them to Deposit Account No. 20-0809.

The Examiner is invited to contact Applicants' undersigned representative with questions.

Respectfully submitted,  
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